

**Prepared Statement
Of
Yakout Mansour
President and Chief Executive Officer
California Independent System Operator Corporation
Before the
U.S. House of Representatives
Committee on Government Reform
Subcommittee on Energy and Resources
July 12, 2006**

Good afternoon, Mr. Chairman, Committee members and other honored representatives. It is a pleasure and an honor to be here today to discuss the electricity outlook in Southern California for the Summer of 2006.

My name is Yakout Mansour and I am the President and Chief Executive Officer of the California Independent System Operator Corporation ("California ISO" or "ISO"). I joined the ISO in May, 2005, but I have been intimately involved with the Western electricity market for many years.

California's electricity system is critical to ensuring the safety and economic health not only of California's citizens, but of all citizens and consumers in the Western United States. The ISO facilitates thousands of wholesale electricity transactions on a daily basis to help ensure that supply meets demand in real time. Additionally, we ensure a reliable grid through a transmission planning process and development of transmission maintenance standards.

The California ISO is the largest control area, in terms of load and peak load served, in the Western Interconnection. It is the only control area that is completely independent of a financial interest based on how it operates and meets reliability criteria, and it is dedicated to ensuring a safe, reliable and affordable transmission system. We are working closely with stakeholders,

California State agencies, federal agencies, our regional partners, and consumers at large to accomplish these goals.

I want to report to you that, while more work remains to be done, we have seen some extremely positive developments in California. From an operational perspective, 2005 was an outstanding year for the ISO, in which we met or exceeded all control performance standards. Our market monitors found the California ISO's markets stable and competitive for the fourth year in a row. We have realigned the organization in order to streamline and refocus our work activities; as a result, we have been able to reduce our budget by almost \$13 million and, as a result, file our lowest Grid Management Charge ("GMC") since ISO start up. The ISO's filed GMC (on a bundled basis) was reduced 15% from 2005 to 2006 and, over the last three years, has been reduced by 27%. Improvements and upgrades to the ISO-controlled grid are showing their value as congestion costs have been reduced by 50% in the last year as well. Most importantly, as I discuss further below, we are seeing continued investment in the State's critical electricity infrastructure.

I have structured the balance of my testimony to focus on the issues you requested that I address. First, I provide the ISO's perspective on 2006 summer operating conditions. Second, I identify some of the shorter-term strategies and activities undertaken by the ISO to prepare for summer and to further reliable operation of the grid. Third, I will discuss some of the key longer-term strategies and programs underway in California to address California's ever-increasing demand for electricity and the need for new, reliable and environmentally-friendly resources.

Summer 2006 Loads and Resources Assessment

In April 2006 produced its annual Summer Assessment. The ISO's assessment concluded that under the average predicted conditions, the ISO should have more than sufficient resources to meet demand, both on a system-wide basis and in Southern California. While the ISO's assessment also found that under more extreme system conditions we could be presented with reliability challenges in Southern California this summer, I am confident we have sufficient resources to serve load under a wide range of systems conditions.

The Federal Energy Regulatory Commission's May 18, 2006 Summer Energy Market Assessment ("FERC Summer Assessment"), referencing the ISO's study, generally concurred with the ISO's findings. In addition, I believe that the FERC's assessment is generally consistent with FERC's earlier findings in 2004 and 2005, as well as with the projections made by the California Energy Commission and the California Public Utilities Commission (CPUC).

As stated above, in April 2006 the ISO released its ISO's 2006 Summer Loads and Resources Assessment. The ISO prepares such an assessment prior to every Summer and Winter operating season. As shown, the ISO's assessment shows that on a system-wide basis, there is sufficient supply capacity to address ISO control area needs. Under the "most likely" scenario, California's Operating Reserve Margin statewide is projected to be approximately 12%; well above the 7% minimally acceptable daily reserve margin. "Most likely" conditions include average temperatures, all major transmission facilities in service, average projection of economic conditions, average forced outage rates for generation, known generation retirements and "most likely" import conditions.

With respect to Southern California, under normal operating conditions we estimate that we will have a peak demand of 27,299 MW in the area south of Path 26 (“SP26”) this summer. Total generation capacity, including forced and planned outages, amounts to 19,976 MW and imports are projected at 10,100 MW, leaving 2777 MW in excess or “unloaded” capacity.

It is critical to emphasize that even with the loss of a major transmission line and higher than expected generation outages, the ISO should have more than sufficient resources to serve load under the “most likely” conditions and a wide range of other system conditions, even without calling on the contracted interruptible load resources available to the ISO.

As the FERC assessment has predicted, the capacity picture south of Path 26 may be a source of concern under “extreme” conditions, e.g., unlikely conditions. “Extreme” conditions are those in which electricity demand is higher than expected due to extreme weather conditions, such as very high temperatures and the low availability of hydroelectric resources. Such conditions are typically referred to as “one in ten” conditions – conditions that are likely to exist only in one out of every ten years. As forecast by the ISO, demand south of Path 26 could exceed 29,560 MW under such conditions. With a total generation capacity of 19,976 MW and imports at 10,100 MW, a margin of 516 MW would exist. Once again, however, such conditions are very unlikely. That notwithstanding, it is critical that the ISO develop operating plans that will enable it to operate the grid safely and reliably. I discuss this issue further below.

I note that subsequent to April we have made certain refinements to our assessment. Since we prepared the summer assessment a few things have changed. First, while we had estimated a net generation addition of 370MW for Summer 2006, subsequently announced retirements and additions result in a net

loss of generation of 42MW. In addition, the California Energy Commission has raised their estimate of available Demand Response and Interruptible resources from 1840MW to 1927MW. The net affect of these changes is insignificant and does not change the bottom-line conclusions of our earlier assessment.

Under the conditions identified in the assessment, the ISO anticipates that it will continue to satisfy all applicable reliability standards, as established by the North American Electric Reliability Council (“NERC”) and the Western Electricity Coordinating Council (“WECC”). The NERC and WECC standards are *operating* standards and are meant to define and guide reliable operation of a power system on a day-to-day and moment-to-moment basis. The ISO’s loads and resources assessment is part of a typical planning exercise and the “most likely” conditions (loads and resources balance) are within generally accepted system planning standards. Examination of system conditions under “extreme” conditions is necessary to properly prepare for *operations*, but no one should assume that the identified potential supply deficiencies under the “extreme” system conditions are necessarily a problem that must be entirely addressed through the addition of new resources, i.e., that the system should be *planned* to that level of reliability.

Historically, utilities have added resources in accordance with certain predefined standards that reflect a set amount of risk of load curtailment. For example, traditionally, many utilities have built their systems to satisfy a Loss of Load Probability (“LOLP”) of one-day in ten years. That is, they have added resources and built infrastructure to ensure that they will not have to drop load more than one day in every ten years. While not precisely based on such a standard, I believe the CPUC’s adopted resource adequacy requirements, e.g., the 15-17% planning reserve margin, are meant to approximate such a standard. I believe this is an appropriate balancing of risk and costs and that it would be exorbitantly

expensive to build resources and infrastructure so as to either completely mitigate, or substantially reduce, the likelihood of firm load curtailment. It just would be too expensive to add resources so as to ensure service reliability one hundred percent of the time. That would not be a cost-effective approach to both planning and operating an electric power system and would not be in the best interest of consumers.

It is also important to remember and consider that operating conditions are influenced by a number of factors including not only temperature and the availability of generating resources, but also the operation of transmission facilities. The loss of a major transmission facility due to mechanical failure, wildfires, or other contingencies can greatly impact grid reliability by reducing the amount of power that can be imported into California or restricting the ISO's ability to redispatch the system and transmit power where and when needed.

To that end, since the end of last summer the ISO has focused significant attention on the development of operating plans and tools to prepare for a reasonable range of probable conditions, including the adverse system conditions identified above. Development of these plans and tools is necessary to ensure that the ISO can both anticipate, and take timely action to address, operating conditions on the system. To develop such plans, the ISO performs operating studies to determine what facility, if lost, would have the greatest impact on the ISO's ability to reliably operate the system. This is often referred to as the "Most Severe Single Contingency". A "single contingency" is, for example, the loss of either a major transmission line or substation, or the loss of the generating unit.

For purposes of studying Summer 2006 operating conditions, the ISO has identified the loss of the Pacific DC Intertie ("PDCI") as the "Most Severe Single

Contingency.” The PDCI is a major transmission path that runs from the Pacific Northwest down to Los Angeles, California, and is critical for bringing required imports from the Pacific Northwest to areas in southern California. The power transmitted on the line is used to serve load both inside and outside of the ISO’s control area. Loss of the PDCI at any time requires that the ISO implement significant contingency procedures. Since the beginning of this year, outages on this line have occurred with great frequency. Sixty-four (64) forced outages have occurred on the PDCI from January 1 through mid-June of this year. . Should such outages continue they could seriously impact the reliability of power supplies in California. The ISO’s study shows that if the PDCI is lost, dispatching the required amount of energy to make up for the loss would be a major challenge. If the Southern California load is higher than average, the import capacity/availability is less than normal, the amount of generation out of service is higher than normal, or if there is a sustained outage of another major transmission line, the capacity margins could be exhausted and the ISO may have to implement load curtailment to ensure grid stability. This scenario is, of course, not limited to loss of the PDCI, but recent experience has increased our concerns about the potential for this to occur. The ISO continues to work closely with the Bonneville Power Administration, and the Los Angeles Department of Water and Power, who is responsible for the physical operation of the line, to identify the causes of the outages and to address operational and communications issues among the parties. We are encouraged by the concern that the staffs of Bonneville and LADWP have shown and the steps they have taken to diagnose issues and improve coordinated operations. I want to emphasize how crucial this communication and coordination will be going forward as we meet the challenges of our ever-increasing demand for electricity.

In summary, although both the ISO’s and FERC’s assessment are consistent in anticipating that electricity supplies will be tight in Southern California in the summer of 2006 and for the next two years, the ISO should have sufficient resources to serve load under a wide range of operating conditions. To address

the existing circumstances, the ISO has been working with utilities, generators, and other control area operators in the West on strategies for the summer of 2006 and beyond.

Short-Term Strategies to Prepare for Summer 2006 Operations

As I explained earlier, since last year the ISO has been preparing the operating plans and tools necessary to ensure that the ISO can operate a safe and reliable system. These operating plans and tools are designed to ensure that the ISO meets all generally-accepted operating standards, as established by the North American Electric Reliability Council ("NERC") and the Western Electricity Coordinating Council ("WECC"). Specifically, the tools and procedures are designed to allow the ISO to both anticipate and take timely action to address all operating conditions. Toward that goal, the ISO has developed an operating tool that will allow the ISO to determine the resources it will need, both in quantity and location, to reliably operate the system under various contingencies, including, as explained above, the Most Severe Single Contingency. Based on that determination, the ISO will then be able to ensure, on a day-ahead and hour-ahead basis, that all available capacity resources are committed and deployed effectively to address contingencies, with a specific focus on the SP26 region.

Capacity resources include those made available through the ISO's ancillary service markets, real-time energy market, or pursuant to the ISO's more general authority to commit resources under its FERC-approved tariff. In addition, and perhaps most importantly, as of June 1, 2006, capacity resources procured pursuant to the CPUC's "Resource Adequacy" program are available to the ISO for commitment and dispatch. Under the requirements of that program, load-serving entities under the CPUC's jurisdiction are required to procure and make available to the ISO the capacity resources necessary to serve their load, plus a reserve margin. I discuss the CPUC's Resource Adequacy program further below.

To ensure a complete and thorough understanding of how the ISO intends to reliably operate the system this summer, the ISO has worked extensively with the Governor's Office, the CPUC, the Energy Commission and other state entities to ensure effective and coordinated operations among and between the ISO and state entities. Such coordination and communication is critical not only to ensure reliable operation of the entire system but also as a means to develop and elicit effective conservation efforts throughout the state. Investor-Owned Utility administered demand reduction programs have increased approximately 250 MW between 2005 and 2006, offering a total of 1840 MW for this summer. Furthermore, the ISO has rolled out our annual summer conservation campaign, which allows the public to know twenty-four (24) hours in advance of when conservation is needed during specific times and regions of the state. We estimate that this program alone generated approximately 800 MW on hot days last year.

In addition, the ISO has been working closely with all market participants to ensure that they understand the ISO's operating strategies and plans and can partner with the ISO in maintaining grid reliability this summer. In early June, the ISO successfully concluded its "Summer Seminar" training exercise, involving participation by over 300 operating personnel from the investor-owned and municipal utilities and other public power entities. The ISO also held specific meetings with the IOUs, municipal utilities and suppliers to share with them our proposed summer operating plan. These activities have provided valuable opportunities to communicate information so that all parties are fully prepared for summer operations.

The ISO has worked closely with the load-serving entities to secure additional contracted resources (interruptible loads) south of Path 26 for the summer of 2006. In addition, in order to maximize the amount of transmission capacity and

availability into both California and the SP26 region specifically, the ISO is working with transmission owners to ensure that all maintenance and outage programs are well coordinated during the summer season and that transmission projects are completed on time. Working with transmission owners, the ISO has identified both infrastructure upgrades and “softer” projects, such as remedial action schemes, that will allow us to import 800 MW more than usual this summer. In addition, an additional 1400 MW in transmission capacity has been added this summer.

The ISO has also worked with neighboring control area operators to discuss supply and demand outlook and to determine areas of excess/deficient supply. Finally, the ISO has worked with both load-serving entities and transmission owners to develop a plan for interruptible and firm load curtailment should such actions be necessary in response to “extreme” system conditions.

On the supply side, the ISO continues to work with suppliers, both public and private, to ensure a complete and accurate understanding of the anticipated operating environment. In addition, in order to maximize the availability of all supply resources, the ISO is working with the owners of all generating plants to coordinate all necessary planned outages and to emphasize the need for timely notification of unplanned outages. The supply community has been very responsive and I believe the suppliers are a committed partner in ensuring the reliable operation of the grid this summer.

Furthermore, in anticipation of the possibility of tight supplies this summer and the need to better position the ISO (and California more generally) to compete for such supplies, the ISO Governing Board authorized, and FERC approved, an increase in the bid caps in the ISO’s markets from \$250/MWh to \$400/MWh. Although the increased bid caps are still the lowest among the established

Regional Transmission Organizations (“RTOs”), I believe the increased bid caps provide suppliers additional and appropriate bidding flexibility. Such flexibility should better enable suppliers to cover their marginal costs while securing a reasonable contribution to their fixed costs. I note that the May 18 FERC Summer Assessment found that even with the increase the bid caps that average energy prices have not been affected much.

I am pleased to report that such coordination with market participants has already paid dividends. On June 22, 2006, the PDCI was forced out of service. Loads on the system were high as a result of high temperatures. As a result of PDCI outage, the ISO was forced to cut 600 MW of schedules on the PDCI, thus limiting the amount of power flowing into Southern California. The ISO immediately implemented contingency procedures to ensure both the continued reliable operation of the grid and uninterrupted service to customers. The ISO dispatched available capacity and system frequency was returned to the pre-disturbance level within fourteen minutes. In addition, the ISO experienced no overloads on other major transmission paths (frequently, with the loss of a major transmission line, power will flow onto other in-service lines, potentially causing those lines to exceed their rated capabilities). The ISO was able to successfully address this contingency because of prior planning and the fact that it has previously committed available generation in anticipation of the need. While such events are not unexpected and all system operators must be prepared to address such situations, this event provides a good example of the need for good operational planning and how the ISO is prepared to address contingencies that may arise this summer.

Long-Term Investment Strategies

Although tight reserve margins exist and are likely to persist over the two years, investment in California is on the right track. Since 2001, approximately 14,950 MW of generating capacity has been added in California. About 2300 MW of new generation has been added in Southern California alone since January, 2005. In fact, there was more new generation investment in California in 2005 than in any other regional transmission organization footprint. As FERC accurately reported in its Winter 2005/2006 Energy Market Update, California tripled its new investment in power plants since 2004. There were also a significant number of generator retirements during this period, resulting in a net loss of generation of 42MW for 2006. However, the replacement of old, inefficient, polluting plans with clean and efficient units is in itself a benefit to the State and its citizens.

We are also seeing investments in new transmission infrastructure in the state. We have been working closely with transmission owners to identify, gain approval and then accelerate construction of transmission upgrades.

Transmission projects now in the planning stages will not only supply needed transmission to Southern California, but will help the development of renewable resources to meet the state's aggressive Renewable Portfolio Standard for electricity generation of 20% by 2010. Three important projects that the ISO is currently studying include the combined Sunrise Powerlink and Greenpath projects in San Diego and Imperial counties, the Tehachapi transmission planning effort, and the Lake Elsinore Advanced Pump Storage ("LEAPS") project in southeastern Riverside County. The Sunrise/Greenpath projects would enable 2000 MW of geothermal and solar resources to come on line. The Tehachapi project is designed to bring 4000 MW of wind resources to the grid by 2010. The LEAPS project is planned to be able to pump water to an upper reservoir when electricity is abundant (nighttime) and generate electricity when

needed most (daytime). The LEAPS project would allow 500 MW of energy to be stored to help address the intermittent nature of the wind resources in the Tehachapi project as well as to improve water quality in the lake itself. The ISO is currently studying and has not yet made a final determination as to the need for any of these projects, the ISO is committed to identifying, evaluating and ultimately, if appropriate, building needed new transmission lines. The Sunrise/Greenpath project is likely to come before the ISO Governing Board for approval at its August 3rd meeting. The Tehachapi and LEAPS projects are likely to be addressed shortly thereafter, although the ISO is awaiting certain decisions from FERC regarding the LEAPS project before it can make a final determination regarding that project.

In addition, many ISO stakeholders have identified the cost of transmission facilities as a significant barrier to the development of renewable generation, especially in geographic regions with little load but vast potential for renewable energy supply. In response to this input, the ISO is exploring the development of a new approach to promote construction of transmission facilities that are necessary for renewable generating resources. We are now reviewing options and strategies for new evaluation criteria and cost recovery policies that will remove barriers to development of renewable generation in the West, including the possibility of a distinct category for “renewable generator supply transmission lines” that would be eligible for alternative cost recovery treatment. FERC will ultimately resolve the policy questions related to these issues.

Finally, in addition to the three major projects discussed above, the ISO also anticipates \$1.8 billion of additional transmission investment over the next five years in Southern California alone. Such new investment will enhance the ISO’s ability to both import needed power into Southern California, but also to deliver it where it is needed.

On a long-term basis, the best means to address the tight supply conditions in Southern California is to create a market and regulatory environment that attracts new investment in the state's critical energy infrastructure. I am now more encouraged than ever that such an environment has now returned to California and will continue to flourish. Policymakers throughout the state – be it the Governor's Office, the CPUC, the CEC or other state entity – are on the same page and through their concerted efforts are creating the policies and rules necessary to attract new investment.

The Governor's Office is strongly promoting new infrastructure development and is leading the way in facilitating the development of new, environmentally friendly new resources. Strongly supported by both the Governor's Office and the State Legislature, the state's Renewable Portfolio Standard ("RPS") policies are one of the most aggressive in the country, setting as a goal to have 20% of the state's energy requirements satisfied by renewable resources by 2010 and 33% of the state's energy requirements satisfied by renewable resources by 2020.

On a broader basis, the CPUC has taken a number of very important steps over the past few years to establish rules that will promote the development of new infrastructure in the state. Without question, the best means to secure new electric infrastructure is to ensure that load-serving entities have both the obligation and ability (certainty) to enter into secure long-term forward contracts with suppliers. Such forward contracts provide load-serving entities - and ultimately consumers - a means to mitigate price volatility and secure stable and reasonably priced electricity. In addition, such contracts provide a stable revenue source to fund new investment – a stated prerequisite for investors in today's energy marketplace.

As referenced above, over the past several years the CPUC has adopted, for the load-serving entities under its jurisdiction, explicit annual and monthly requirements ("Resource Adequacy Requirements") for such load-serving entities to procure the capacity resources necessary to serve their load, plus a reasonable reserve margin of between 15-17%. In conjunction with establishing the annual and monthly Resource Adequacy Requirements, the CPUC has also begun to establish long-term procurement rules that require load-serving entities to identify the resources or means by which they will satisfy their load requirements over the next five to ten years.

In a recent draft decision, the CPUC found that 3700 MW of new generation must come on line by 2009 in order for the state to have adequate capacity and reserves, in addition to the investments that the CPUC-jurisdictional load-serving entities are expected to make in renewable resources. In addition, the draft decision adopts an interim cost allocation mechanism, which will be transitional until a capacity market or other new market institutions are developed, that makes the major load-serving entities (the three California Investor-Owned Utilities) responsible for acquiring new generation capacity, on a temporary basis, for bundled and unbundled customers. Such rules and requirements are critical to establishing a regulatory and market environment critical to attracting new investment.

With respect to the development of new transmission infrastructure, I am very pleased by the level of cooperation and commitment of the CPUC, the Energy Commission, and transmission owners in working with the ISO to develop a viable and sustainable transmission planning and development process in California. Working with the CPUC, Energy Commission and transmission owners, I am confident we can construct and implement a transmission infrastructure process that will deliver real results.

While we are encouraged by the progress made to date, we undoubtedly must realize a significant amount of additional infrastructure development to supply the state's growing electricity needs. We estimate that demand for electricity will continue to grow by 1000 MW per year, consistent with demand growth over the last four years.

Of course, with any mention of long-term strategies, I would be remiss if I did not mention the ISO's own efforts to reform its markets. Late next year the ISO plans to implement a comprehensive Market Redesign and Technology Upgrade ("MRTU") program that will help inform infrastructure development in California. The MRTU program, slated to come on line in November of next year, will also correct flaws in the existing market structure that have existed since the western energy crisis, strengthen the reliability and efficiency of grid operations, reduce costs, and guard against "gaming" and market manipulation. Our proposal has been under development since 2002 and has been the subject of an extensive stakeholder process over the last four years and has received conceptual approval by FERC in four interim rulings. It is based on tried and true market design features that have been successfully implemented in other markets. More importantly, the design is predicated on aligning price signals in the market with reliable operations of the grid. Therefore, the design should further the ISO's goal of reducing reliance on the ISO's spot markets and ensuring that sufficient resources are procured and made available to the ISO ahead of real-time to as to reliably serve load on the system. The proposal is currently pending at FERC.

As you may know, a number of parties have raised issues with respect to the ISO's MRTU proposal and whether it is compatible with the form and function of the larger Western electricity market. I can assure you that the ISO will not implement a market design that will inhibit the function of the larger regional electricity market. Others represent that the ISO is beholden to a philosophy and resultant market design that is based on an exclusive reliance on spot market

prices. This is not true. The ISO's MRTU design is a perfect complement, not alternative, to longer-term bilateral contracting and will work seamlessly with the CPUC's longer-term procurement program. As noted above, the ISO's MRTU design is based on tried and true principles and designs that align the requirements of reliable grid operation with market price signals.

In conclusion, the State of California is making progress on four crucial tasks: building the long-ignored electricity infrastructure; retirement of old, inefficient facilities; accommodating the most aggressive renewable program in the country; and meeting the demands of a healthy and growing economy. It will take the cooperation and coordination of all stakeholders, along with state and federal policymakers, to ensure that these challenging tasks can be realized. In the meantime, one can expect a period of "catch up" reflected by the tight situation we face this summer and in all likelihood the next two years. The ISO looks forward to its role in achieving these benefits for California and the western U.S.

I would like to thank you again for the opportunity to address you today and for your attention to these pressing issues. I look forward to answering any questions you may have. Thank you.

Executive Biography

Yakout Mansour

President and Chief Executive Officer California Independent System Operator

California Independent System Operator (California ISO) President and Chief Executive Officer Yakout Mansour brings 30 years of power system experience to his position managing California's open-access high-voltage power grid. Previously, he served as the Senior Vice President of System Operations and Asset Management for British Columbia Transmission Corporation (BCTC) since its inception in 2003. Mr. Mansour helped chart the course of BCTC as an independent entity and was a major contributor to the development of the transmission business in British Columbia and the North West. Previously, at BC Hydro, Mr. Mansour served as Vice President Grid Operations and Inter-Utility Affairs, a functionally separate division responsible for the system operation as well as the development of policies and practices related to inter-utility transmission access and wheeling services in British Columbia. A registered Professional Engineer in the Provinces of British Columbia and Alberta, Mr. Mansour is a Fellow of the Institute of Electrical and Electronics Engineers (IEEE), has authored and co-authored over 100 papers and special publications for IEEE and other international professional institutions, and has provided training and consulting services around the world. His groundbreaking developments in electric power system dynamics have made him recognized internationally and he holds related patents in both the United States and Canada. Prior to Mr. Mansour's research in this area, the phenomenon of voltage instability was an emerging issue with no specific method in existence to analyze the problem. He has made major contributions to this field of research and has been a guiding force in the industry. Mr. Mansour was awarded several awards for his innovations and distinguished services to the electric power industry. Mr. Mansour has been providing valuable testimonies to the U.S. Federal Energy Regulatory Commission and the British Columbia Utilities Commission on matters related to grid planning, operation, market development, and industry restructuring. The North American Electric Reliability Council (NERC) named Mr. Mansour to the panel that steered the investigation of the August 14, 2003 blackout that affected much of the eastern North America. He was part of a similar panel that looked into the blackout that affected the western United States and Canada on August 10, 1996 as well as major blackouts that affected other parts of the world in South America and Asia in recent years.

Mr. Mansour's activities in several national and international industry associations and institutions over the last 20 years included:

- Chairman and member of several committees and working groups of the Institute of Electrical & Electronic Engineers.

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- Principal and Board member of the GridWest Northwestern U.S. Regional Transmission Organization (RTO).
- Member of the Steering Group of the Seams Steering Group-Western Interconnection (SSG-WI).
- Member of the Stakeholder Committee for the NERC, representing Canada at large.
- Member of the Canadian National Committee of the international organization CIGRE.
- Member of the Transmission Council of the Canadian Electric Association.

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